SHARP

STEREO MUSIC SYSTEM
STEREOMUSIKSYSTEM

MODEL / MODELL — MODEL / MODELL

CMS-R250H/CMS-R330H

COMPACT DISC PLAYER
COMPACT DISC-SPELARE

MODEL / MODELL — MODEL / MODELL

DX-R250HM/DX-R330HM

OPERATION MANUAL
BRUKSANVISNING

COMPACT disc DIGITAL AUDIO

PHOTO: CMS-R250H/DX-R250HM
FOTO: CMS-R250H/DX-R250HM

ENGLISH

SVENSKA

SPECIAL NOTES
SÄRSKILDA ANMÄRKNINGAR

- The letters in brackets contained in the model number indicate the colour of the product only. Operation and specifications are unaffected.

- Bokustäver inom parantes i modellnummert anger endast produnktfärg. Funktioner och tekniska data påverkas inte.

- Audio-visual material may consist of copyrighted works which must not be recorded without the authority of the owner of the copyright. Please refer to relevant law in your country.

- Audiovisuellt material kan innehålla upphovsrättsarbete som inte skall mångfaldigas utan tillstånd av copyrightinnehavaren. Se den tillämpliga lagen i ditt land.

- When the POWER switch is set at ⏻ STAND-BY position, mains voltage is still present inside the unit. When the POWER switch is set at ON position and the REMOTE CONTROL STAND-BY indicator is illuminated, the unit may be brought into operation by use of remote control.

  Warning:
  This unit contains no user serviceable parts. Never remove covers unless qualified to do so. This unit contains dangerous voltages, always remove mains plug from the socket before any service operation and when not in use for a long period.

- När POWER-omkopplaren är i läge ⏻ STAND-BY, finns nätspänning i apparaten.
  Med POWER i läge ON och när REMOTE CONTROL STAND-BY lyser, kan apparaten slås på med fjärrkontrollen.

  Varning:
  Apparaten innehåller inga delar som kan åtgärdas av kunden. Höljet får endast öppnas av kvalificerad personal. Apparaten innehåller farliga spänningar. Stickkontakten ska därför dras ut från nätuttaget före reparationsarbeten och bör dras ut om apparaten inte ska användas på mycket länge.

DENNA APPARAT ÄR ANSLUTEN TILL 230 V VÄXELSTRÖM NÄR STICKPROPPEN ÄR INSKJUTEN I VÄGGUTTAGET. FÖR ATT FULLSTÄNDIGT KOPPLA IFRÅN APPARATEN, V.G. DRAG UT STICKPROPPEN.

The following parts mentioned in this operation manual are not included with this unit.

- External FM aerial
- Compact disc
- Cloth
- Record
- Cassette tape
- Headphones
- Stylus cleaning kit
- Cotton swab
- Demagnetiser

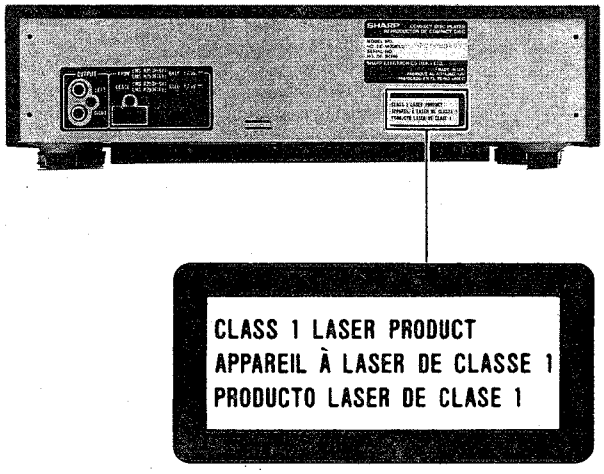
Följande delar som nämns i denna bruksanvisning medföljer inte:

- Extern FM antenn
- CD kompaktdisk
- Duk
- Skiva
- Kassettband
- Hörtelefoner
- Nålrengöringssats
- Bomullstuss
- Defluxer

- This apparatus complies with the requirements of EN 55014, 02.1987.

Caution:
This product contains a low power laser device. To ensure continued safety do not remove any cover or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

PHOTO: DX-R250HM
FOTO:DX-R250HM



LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

ENGLISH

INTRODUCTION

Thank you for purchasing this SHARP product.
For the best performance, read this manual carefully. It will guide you in operating your SHARP product.

CONTENTS

	Page
PRECAUTIONS	1
NAMES OF CONTROLS AND INDICATORS	2-4
REMOTE CONTROL	4-5
PREPARATION FOR USE	6-7
SOUND CONTROL	8
COMPACT DISC OPERATION	8-12
RADIO OPERATION	13-14
TURNTABLE OPERATION	15-16
CASSETTE OPERATION	16-17
RECORDING	18-19
USING EXTERNAL UNITS	19
MAINTENANCE	20
SPECIFICATIONS	21

PRECAUTIONS

- Do not use oil, solvents, petrol, paint thinners or insecticides on the unit.
- Do not expose the unit to moisture or to temperatures higher than 60°C (140°F).
- Keep the unit away from direct sunlight.
- Do not expose the unit to extreme low temperatures.
- Keep the unit away from strong magnetic fields, excessive dust, humidity and electronic/electrical equipment (home computers, facsimiles, etc.) which generates electrical noise.
- Hold the AC power plug by the head when removing it from the AC outlet, since pulling the lead can damage internal wires.
- Remove the AC power plug from the wall socket before cleaning the heads, pinch rollers, etc.
  This unit contains dangerous voltages.
  Do not remove the outer cover, as this may result in electric shock. Refer internal service to your local SHARP service facility.
- Use the unit on a firm, level surface free from vibration.
- If the unit does not work properly whilst in use, set the POWER switch to ⏻ STAND-BY and then to ON again.

Warning:
The voltage used must be the same as that specified on this unit. Using this product with a higher voltage than that which is specified is dangerous and may result in a fire or other type of accident causing damage. SHARP will not be held responsible for any damage resulting from use of this unit with a voltage other than that which is specified.

■ Volume control

The sound level at a given volume setting depends on a combination of speaker efficiency, location and many other factors.
Care should be taken to avoid exposure to sudden high levels of sound, such as occur when turning on the unit with the volume control setting at high, and to continuous high levels of sound.

■ Condensation

Sudden temperature changes and storage or operation in an extremely humid environment may cause condensation inside the cabinet.
Condensation can cause the unit to malfunction.
Follow the procedure below to eliminate condensation.

● CD pickup

Leave the power on with no disc in the unit until normal playback is possible (about 1 hour).

● Tape head

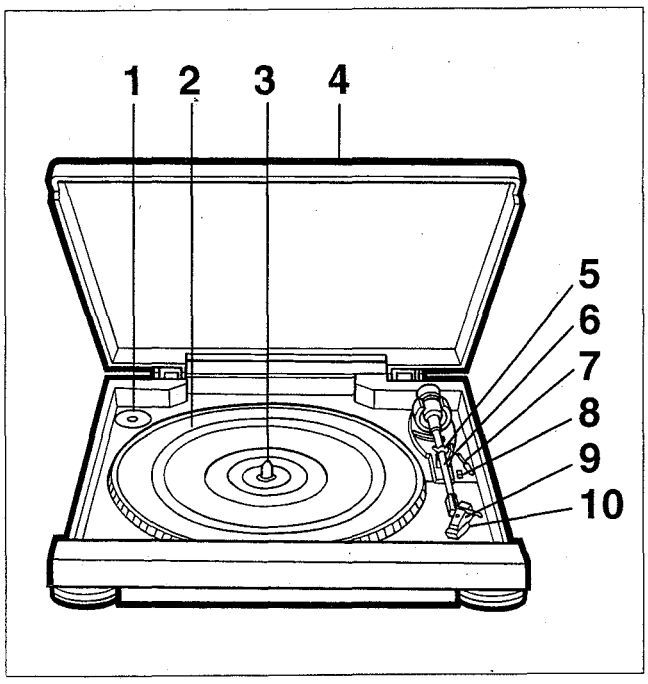
Leave the power on with no cassette in the unit until normal playback is possible (about 1 hour).

Note:
If condensation forms on the tape head, foreign matter may accumulate on it during use.

● Remote control

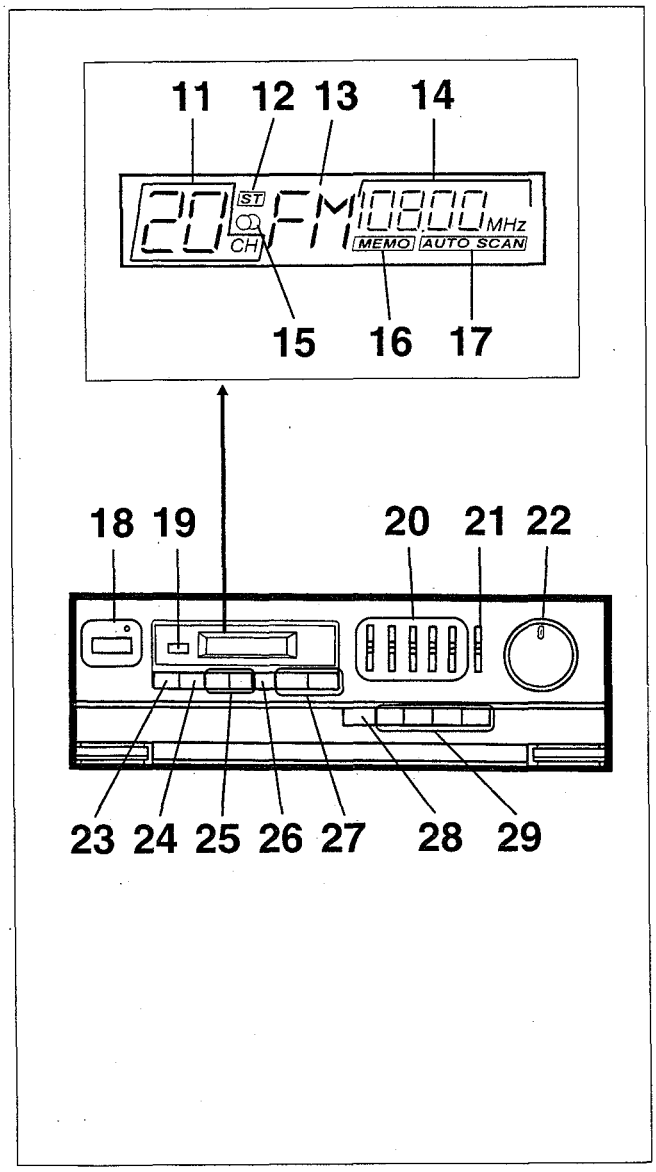
Wipe off any condensation on the transmitter window with a soft cloth before operating the unit.

NAMES OF CONTROLS AND INDICATORS



■ Stereo Turntable section

1. 17 cm (7") EP Record Adaptor
2. Turntable Platter
3. Centre Spindle
4. Dust Cover
5. Tonearm Rest
6. Tonearm
7. Cue Lever
8. Speed Selector Switch
9. Headshell
10. Cartridge

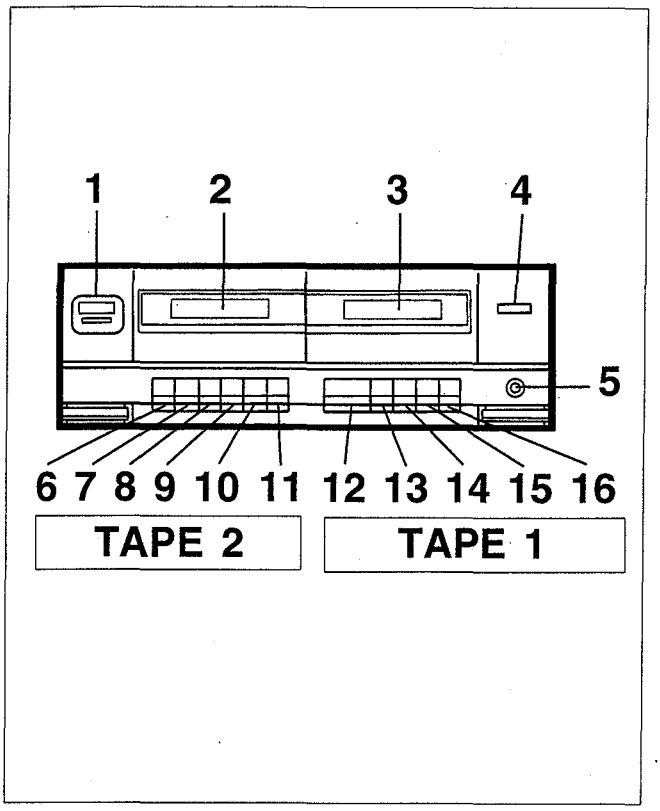


■ Stereo synthesizer tuner/Integrated stereo amplifier section

11. Preset Channel Indicator
12. FM Stereo Mode Indicator
13. Band Indicator
14. Radio Frequency
15. FM Stereo Indicator: ∞
16. Station Preset Memory Indicator
17. Auto Scan Indicator

18. Power Switch and Remote Control Stand-by Indicator
19. Remote Control Sensor
20. Graphic Equalizer Controls
21. Balance Control
22. Volume Control

23. Memory Button
24. Auto Scan Button
25. Tuning Up/Down Buttons: ∨/∧
26. Band Selector Button
27. Preset Channel Up/Down Buttons: ∨/∧
28. Extra Bass Switch: X-BASS
29. Function Selector Buttons



■ Stereo double cassette deck section

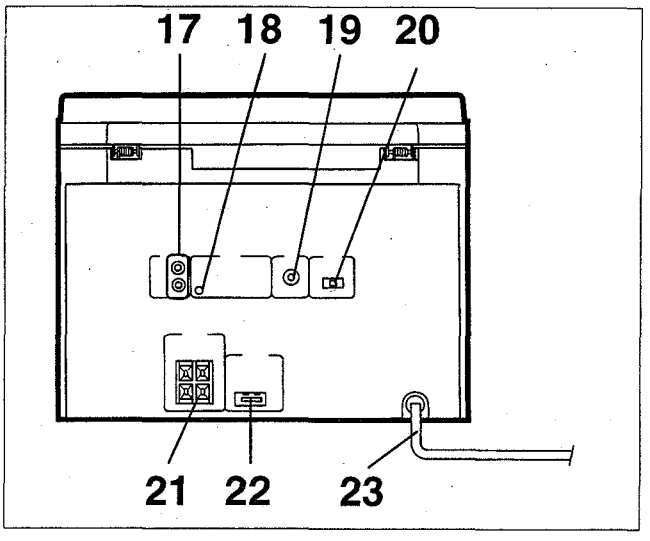
1. TAPE 2) Tape Counter and Reset Button
2. TAPE 2) Cassette Compartment
3. TAPE 1) Cassette Compartment
4. Dubbing Speed Switch
5. Headphones Socket

TAPE 2

6. Record Button: ●
7. Play Button: ▶
8. Rewind Button: ◀◀
9. Fast Forward Button: ▶▶
10. Stop/Eject Button: ■/⏏
11. Pause Button: ❚❚

TAPE 1

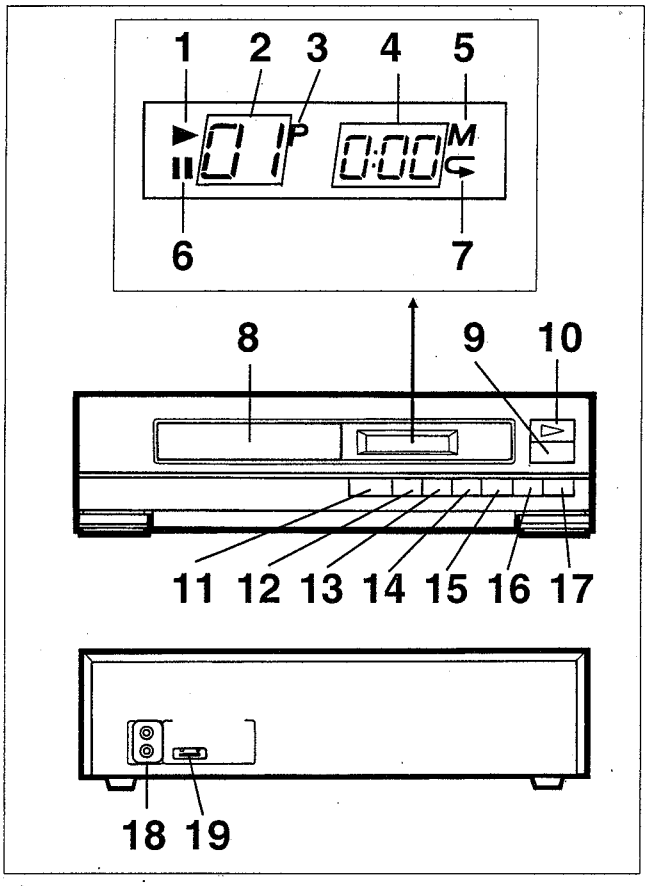
12. Play Button: ▶
13. Rewind Button: ◀◀
14. Fast Forward Button: ▶▶
15. Stop/Eject Button: ■/⏏
16. Pause Button: ❚❚



■ Rear panel

17. CD/Video (Audio Signal) Input Sockets
18. Reset Button
19. FM 75 ohms Aerial Socket
20. Beat Cancel Switch
21. Speaker Terminals
22. System Control Socket
23. AC Supply Lead

(Continued)



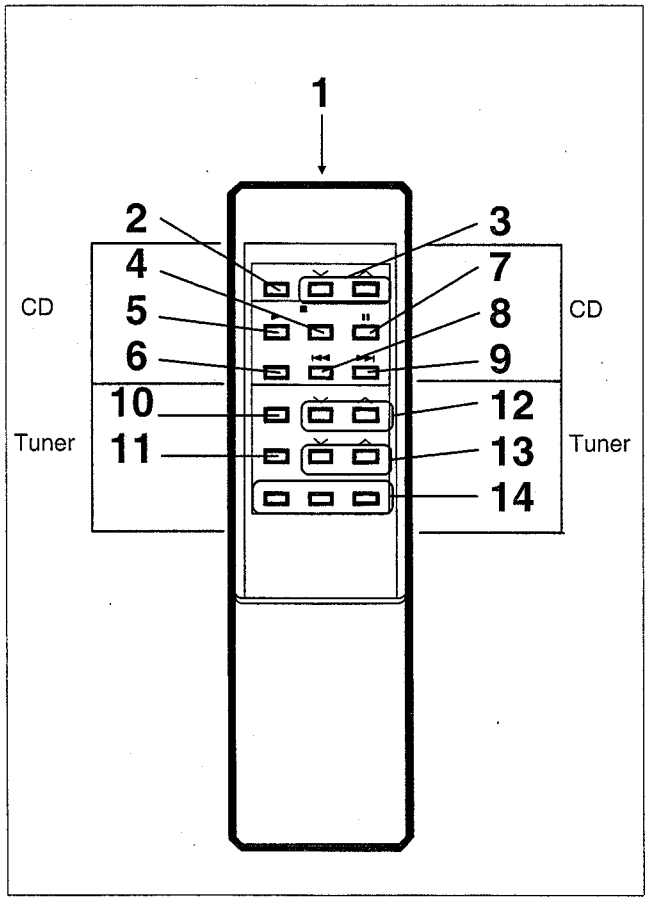
■ Compact disc player section

1. Play Indicator: ▶
2. Track Number Indicator
3. Programme Indicator: P
4. Minutes and Seconds Indicator
5. Memory Indicator: M
6. Pause Indicator: ❚❚
7. Repeat Indicator: ⊂

8. Disc Table
9. Stop/Clear Button: ■
10. Play Button: ▶
11. Open/Close Button: ⏏
12. Repeat Button: ⊂
13. Call Button
14. Memory Button
15. Track Down/Review Button: ⏮ / ◀◀
16. Track Up/Cue Button: ⏭ / ▶▶
17. Pause Button: ❚❚

18. Output Sockets
19. System Control Socket

REMOTE CONTROL



■ Names of controls

1. Remote Control Transmitter Window
2. Power Button
3. Volume Up/Down Buttons: ∨/∧

● CD control buttons

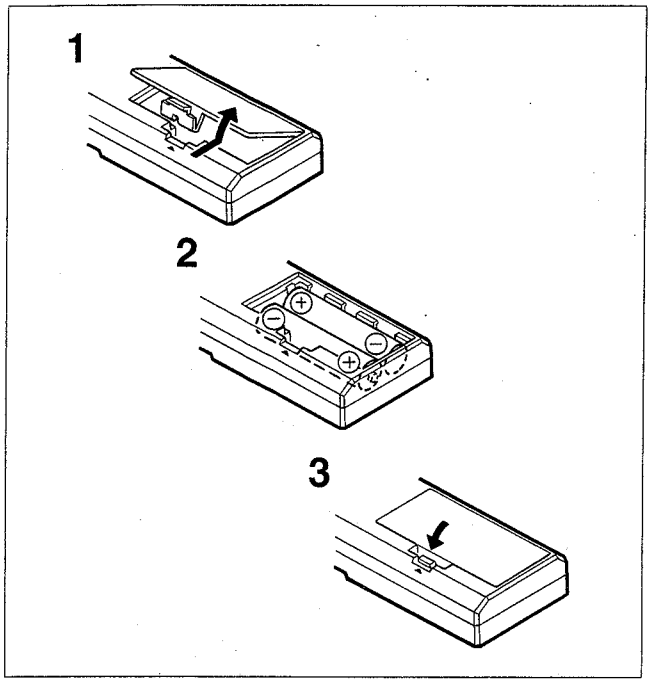
4. Stop/Clear Button: ■
5. Play Button: ▶
6. Memory Button
7. Pause Button: ❚❚
8. Track Down/Review Button: ⏮
9. Track Up/Cue Button: ⏭

● Tuner control buttons

10. Auto Scan Button
11. FM Mono/Stereo Selector Button
12. Tuning Up/Down Buttons: ∨/∧
13. Preset Up/Down Buttons: ∨/∧
14. Band Selector Buttons

Notes:

- The POWER button on the remote control will not function unless power of the main unit is on.
- The REMOTE CONTROL STAND-BY indicator lights up when the POWER switch on the main unit is on.



■ Loading the batteries for the remote control

1 Remove the battery compartment cover.

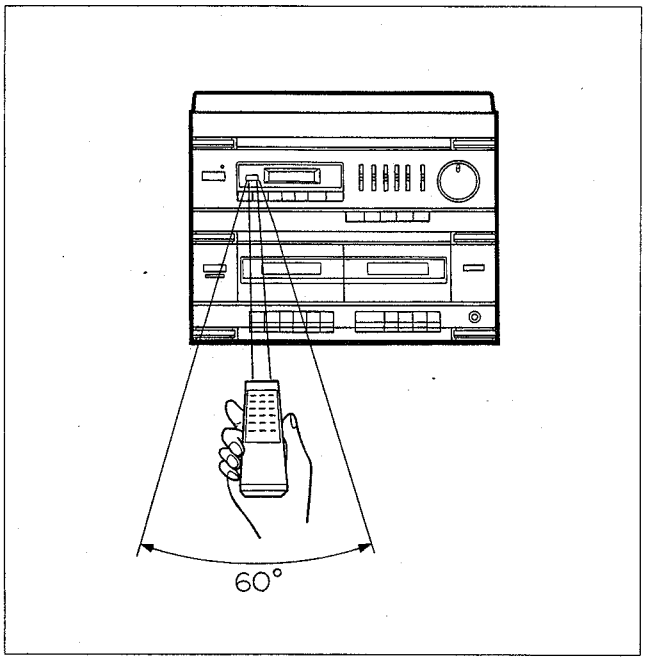
2 Insert 2 "AAA" size batteries (UM-4, R03, HP-16 or similar) into the battery compartment.

- Placing the batteries the wrong way round can cause malfunction.

3 Replace the battery compartment cover.

Precautions for battery use:

- Insert the batteries according to the direction indicated in the battery compartment.
- Replace all batteries with new ones at the same time.
- Remove the batteries if weak or if the unit is not in use for long periods.
- Don't mix normal batteries with rechargeable batteries.
- Don't mix old and new batteries.

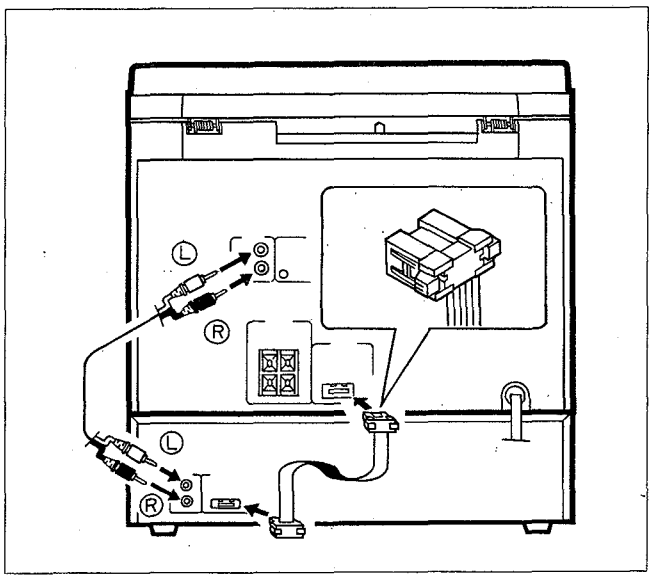


■ Proper use of the remote control

Aim the remote control at the remote control sensor within 60° with no obstacles, and operate as shown.

Notes concerning use:

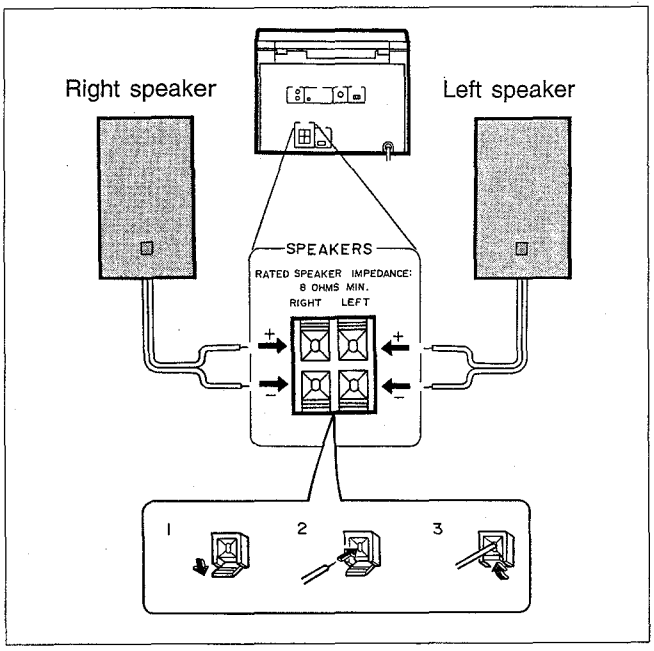
- Replace the batteries if control distance decreases or operation becomes erratic.
- Periodically clean the transmitter window on the remote control and the sensor on the main unit with a soft cloth.
- Exposing the sensor on the main unit to strong light can interfere with operation. Change the lighting or the direction of the unit.
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.
- The remote control's usable range is between 0.2 m (8") and 6 m (20') away from the sensor.



■ Compact disc player connection

- Set the POWER switch to ⏻ STAND-BY before connecting or disconnecting the CD player.
- Use an RCA lead to connect the CD player to the CD/VIDEO sockets (red → right channel, white → left channel)
- Use a system control lead to connect the system control socket of the DX-R250HM/DX-R330HM to the system control socket of the CMS-R250H/CMS-R330H.

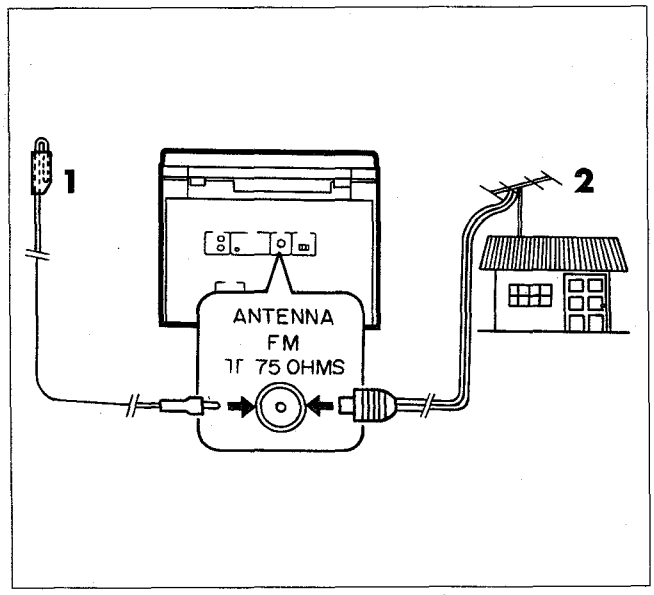
Note:
The system control socket of the CMS-R250H/CMS-R330H is a special socket only for the connection of the DX-R250HM/DX-R330HM having a rating of DC ± 7.3 V and 300 mA max.
Do not connect any other equipment to it.



■ Speaker connection

Connect each speaker wire to the SPEAKER terminals as shown.
Use speakers with an impedance of 8 ohms or more, since lower impedance speakers can damage the unit.

Cautions:
- Connect the wire with the line to the minus (-) and the plain wire to the plus (+) terminal.
- Do not mistake the right channel for the left channel when connecting the speakers to the unit.
- Do not let the bare speaker wires touch each other as this could damage the amplifier and/or speakers.



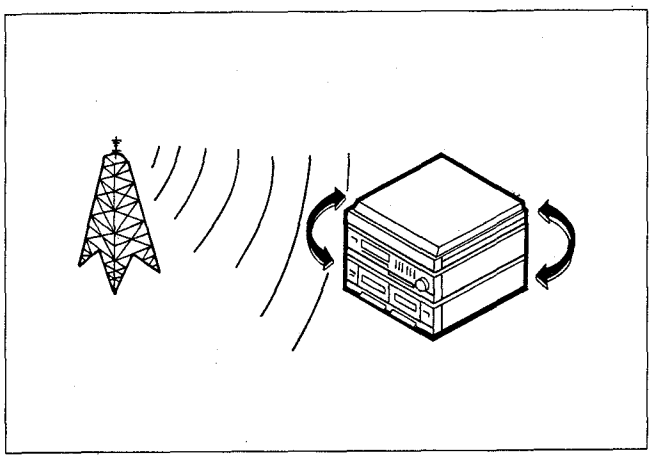
■ FM aerial connection

1 Supplied FM aerial

Connect the FM aerial wire to the FM 75 OHMS socket and position it in the direction where the strongest signal can be received.

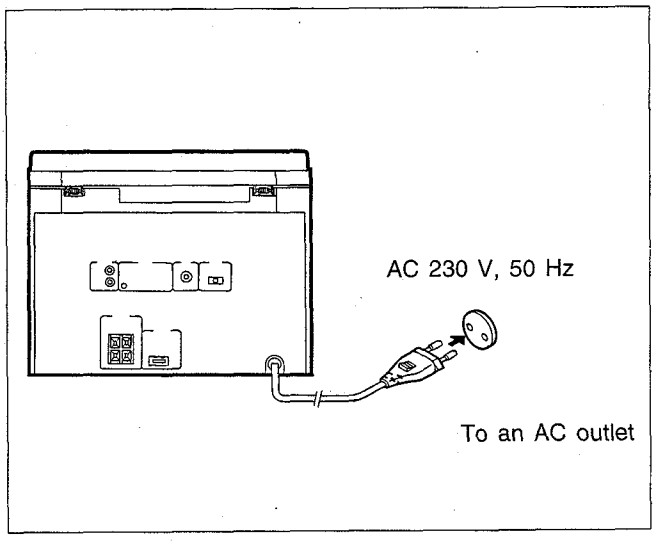
2 External FM aerial

Use an external FM aerial if you need better reception. Consult your dealer.



■ Built-in MW/LW aerial

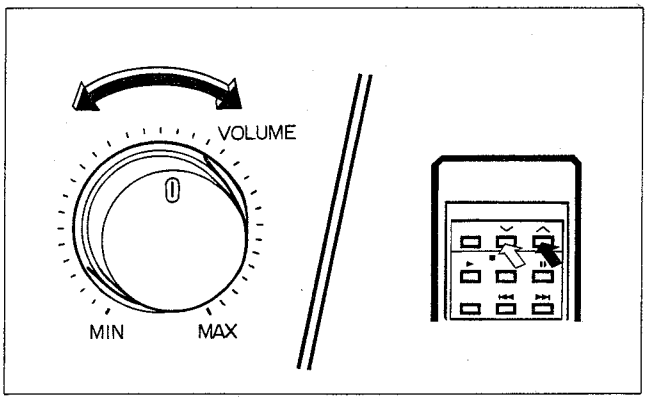
Place the unit in the position that gives the best possible reception.



■ Connecting the AC supply lead

- After connecting the speakers, plug the AC supply lead into a convenient AC outlet.
- Unplug the AC supply lead from the AC outlet if the unit is not to be used for a prolonged period of time.

SOUND CONTROL



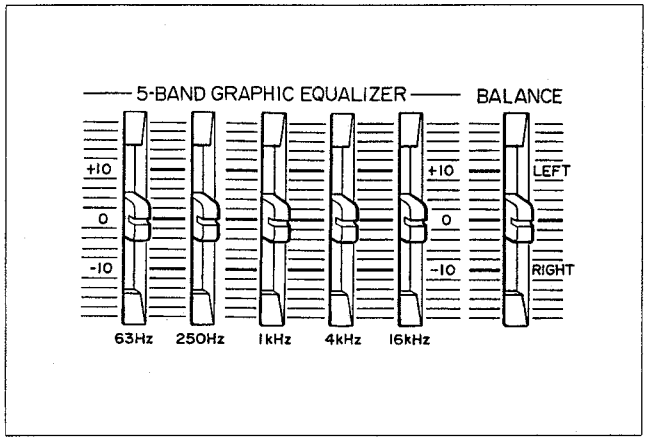
■ Volume

Main unit operation

Rotate the VOLUME control towards MAX to increase the volume, and towards MIN to decrease the volume.

Remote control operation

Press the VOL ∧ button to increase the volume and the VOL ∨ button to decrease the volume.



■ Graphic equalizer

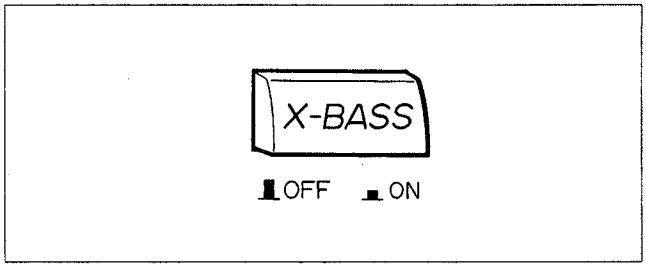
Main unit operation

Move the control for any frequency towards +10 to boost the level for that frequency, and towards –10 to lower the level.

■ Balance

Main unit operation

Move the BALANCE control towards LEFT to decrease the level of the right speaker, and move it towards RIGHT to decrease the level of the left speaker.

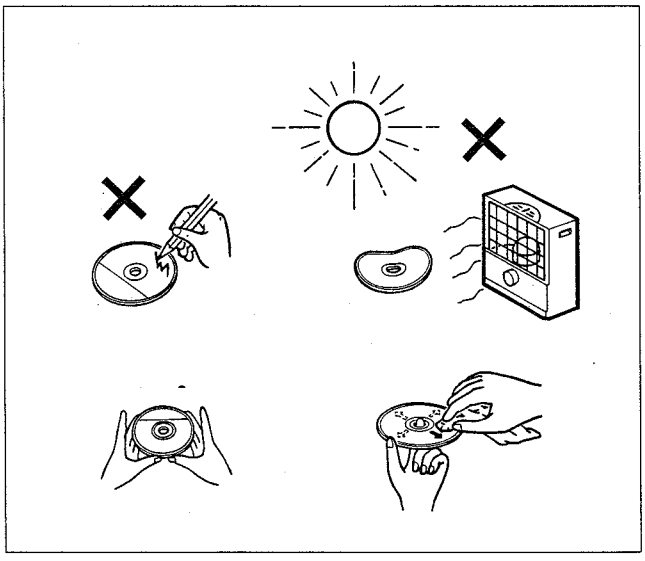


■ Extra bass (X-BASS)

Main unit operation

Set the X-BASS switch to ON to emphasise the bass region of the frequency spectrum.
Set the X-BASS switch to OFF to cancel the extra bass mode.

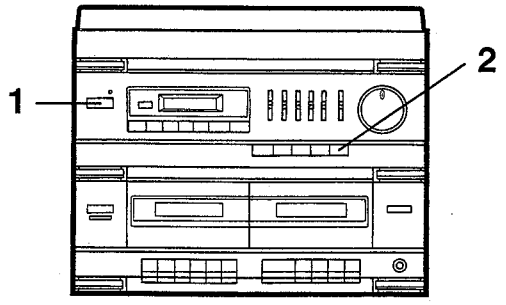
COMPACT DISC OPERATION

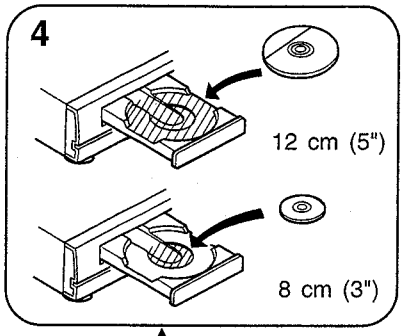


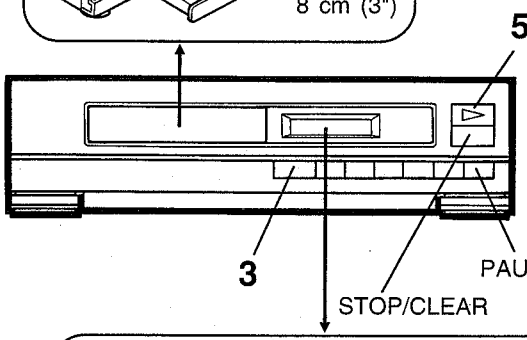
■ Care of compact discs

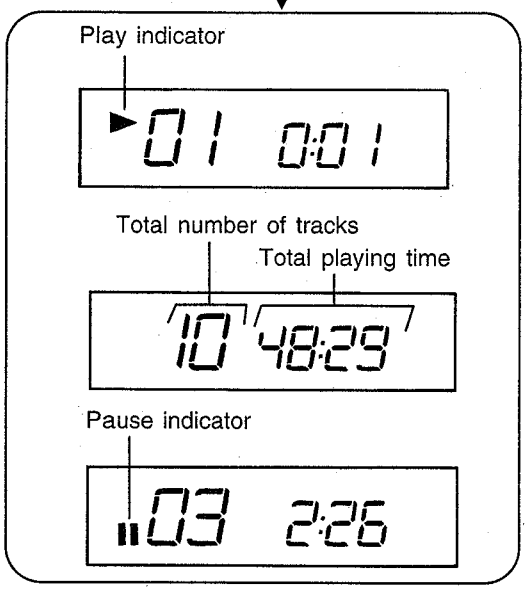
Compact discs are fairly resistant to damage, however mis-tracking can occur due to an accumulation of dirt on the disc surface.
Follow the guidelines below for maximum enjoyment from your CD collection and player.

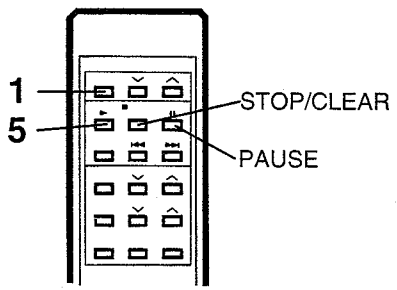
- Do not write on either side of the disc, particularly the non-label side. Signals are read from the non-label side. Do not mark this surface.
- Keep your discs away from direct sunlight, heat, and excessive moisture.
- Always hold the CDs by the edges. Fingerprints, dirt, or water on the CDs can cause noise or mistracking. If a CD is dirty or does not play properly, clean it with a soft, dry cloth, wiping straight out from the centre, along the radius.











■ CD playback

1 Set the POWER switch to ON.

2 Press the CD/VIDEO button.

3 Press the OPEN/CLOSE button to open the disc table.

4 Place a disc on the table, label side up.

- Be sure to place the 8 cm (3") disc in the middle of the table.

5 Press the PLAY button to close the disc table and begin playback from track 1.

- The "▶" indicator will appear and playback will begin.
- When a disc is placed on the disc table and the disc table is closed by either pressing the OPEN/CLOSE button or lightly pushing on the front of the disc table, the total number of tracks and the total playing time will be displayed for several seconds.

To interrupt playback:

① Press the PAUSE button.

- The "❚❚" indicator will light up.

② Press the PLAY button to resume playback from the same point.

To stop playback:

Press the STOP/CLEAR button.

- The display will return to the original indications.

To switch the unit off after use:

Set the POWER switch to ⏻ STAND-BY.

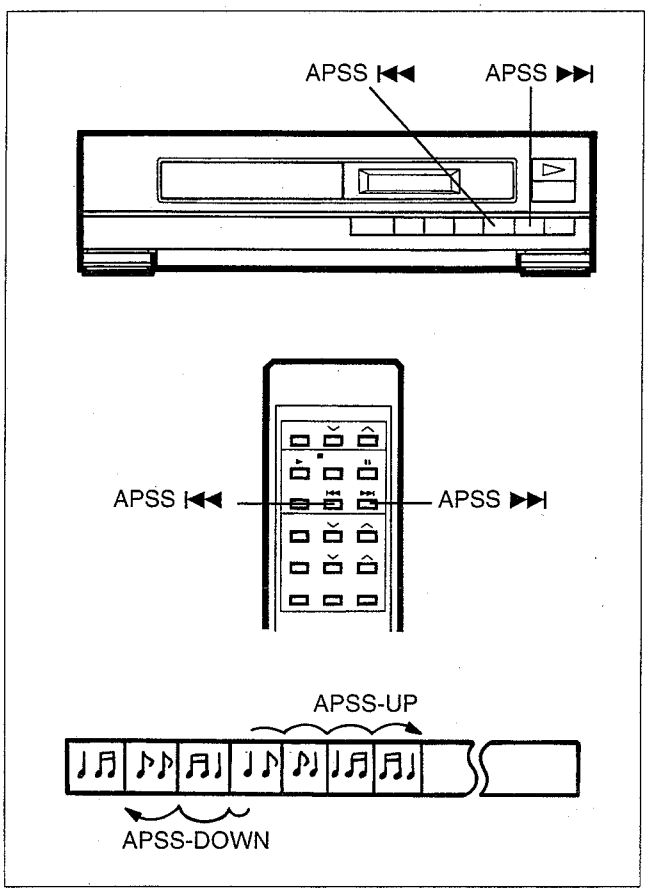
Precautions:

- If TV or radio interference occurs during CD operation, move the unit away from the TV or radio.
- Subjecting the unit to shock or vibration can cause mistracking.
- Do not push the disc table whilst it is moving.
- Press the OPEN/CLOSE button if your finger, a disc, or other object is caught by the table. (The table motor will stop after 4 seconds even if the OPEN/CLOSE button is not pressed.)
- If the power fails whilst the table is open, wait until the power supply returns or gently push the table manually to close it.
- If the disc is damaged, dirty, or loaded upside down, the display will show error signs as follows:

• "Cd" is displayed.

• "Er" is displayed.
Clean, replace, or load the disc properly.

Note:
If the function selector button is set to TUNER, the CD player will not function.



■ APSS (Auto Program Search System)

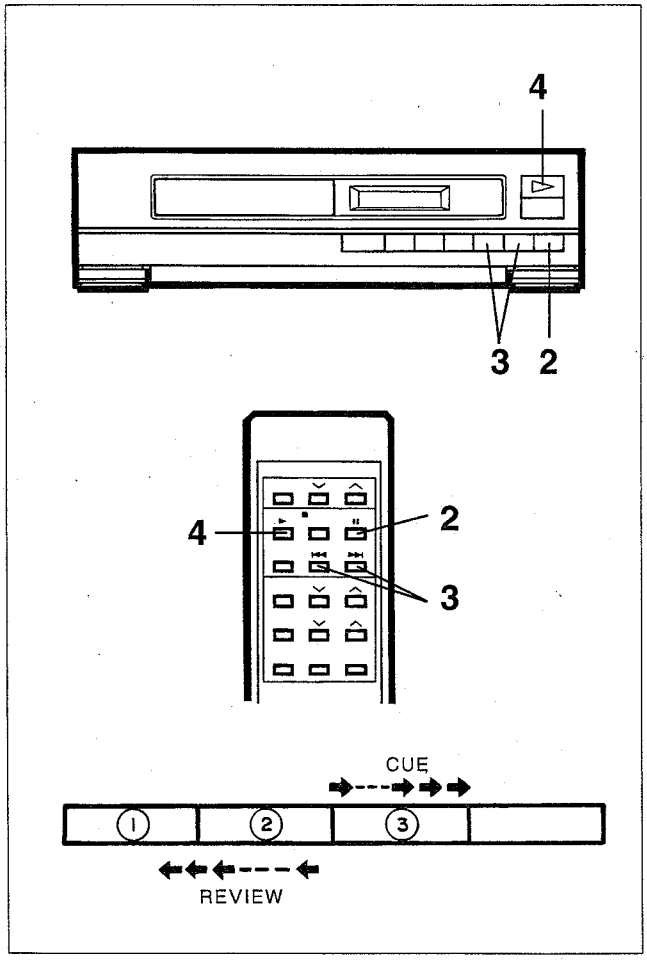
APSS automatically locates the beginning of any track.

1 Load a disc and begin playback.

2 Press the APSS ⏭ button to move forward or APSS ⏮ button to reverse through the CD.

- The "▶" indicator flashes whilst searching for the track's beginning.
- If the APSS ⏭ button or APSS ⏮ button is pressed repeatedly during playback, playback will begin from the beginning of the track shown in the track number indicator.
- If the APSS ⏭ button or APSS ⏮ button is pressed whilst in the stop mode, the CD player will stop at the beginning of the track shown in the track number indicator. Press the PLAY button to begin playback.

Note:
APSS will move forward or backward from any point on the disc before playback begins. It will not move forward during playback of the final track.



■ Cue and review

1 Load a disc and begin playback.

2 Press the PAUSE button to interrupt playback.

- The "❚❚" indicator will light up.

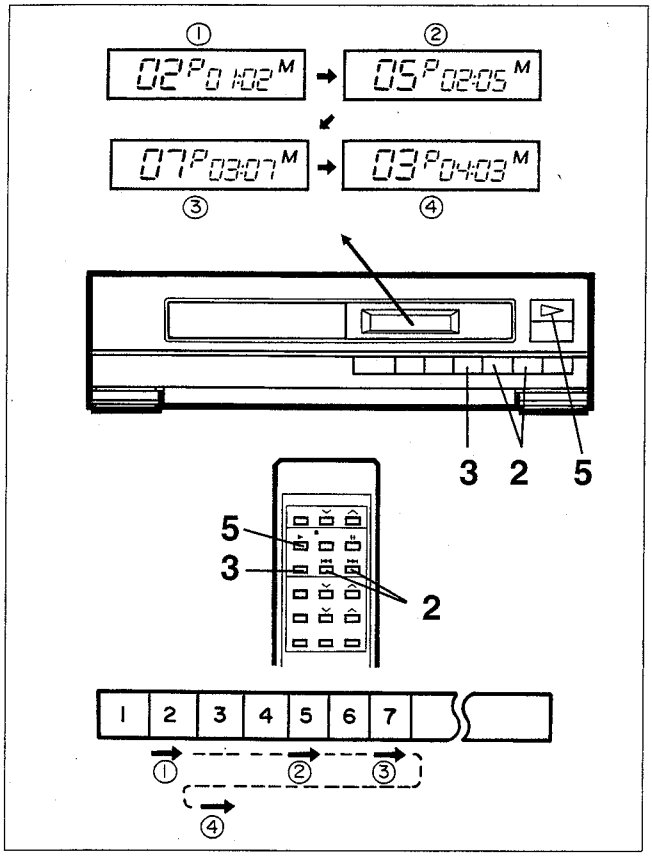
3 Press the APSS ⏭(▶▶) button whilst in pause mode for audible fast forward.
Press the APSS ⏮(◀◀) button whilst in pause mode for audible fast reverse.

- Cue and review proceeds at twice the normal playback speed for about 2 seconds, and then increase to 15 times the normal playback speed.

4 Press the PLAY button to resume playback.

- The "▶" indicator will light up.

Notes:
- Cue and review cannot be used if the unit is programmed.
- If the end of the disc is reached whilst cueing, the "End" indicator lights and CD operation is paused. Press the STOP/CLEAR button to stop CD operation.



■ APMS
(Automatic Programmable Music Selector)

1 Load a disc and close the disc table.

2 Press the APSS ▶▶| button to select the desired track forward, and the APSS |◀◀ button to select the desired track backward.

3 Press the MEMORY button.

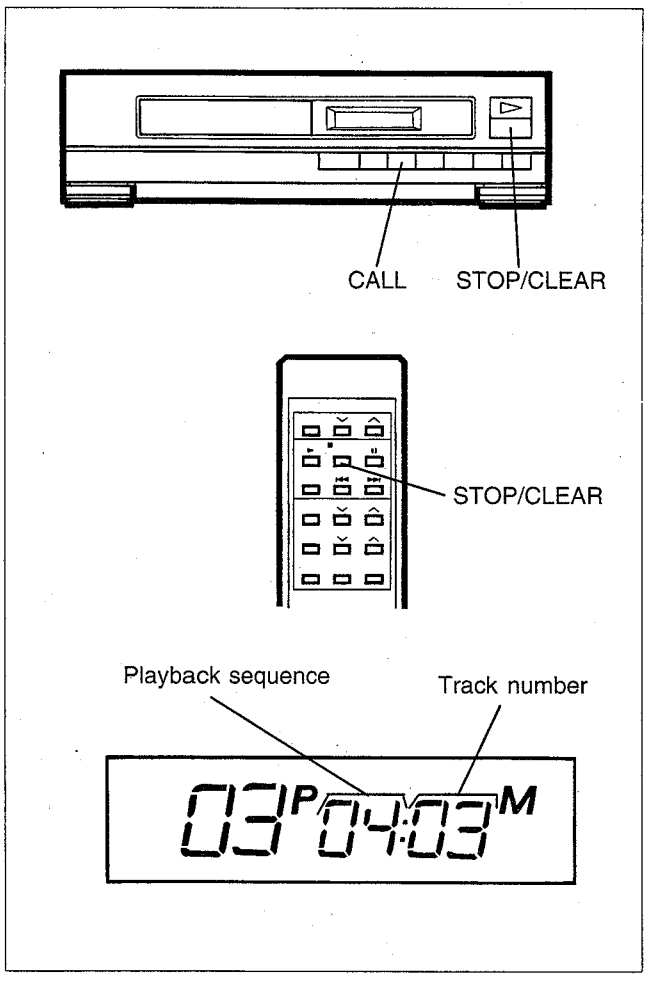
- The "M" and "P" indicators will light to show that the programmed sequence is being entered into memory. The SEC indicator will show the selected track number, and the MIN indicator will show the playback order.

4 Repeat steps 2 - 3 for any other track. Up to 20 tracks can be programmed.

5 Press the PLAY button to start playback of programmed selections.

Notes:

- It is also possible to programme a sequence of tracks whilst looking at the list of tracks on the disc before closing the disc table.
- During playback or pause, programming is not possible.



Call, Clear:

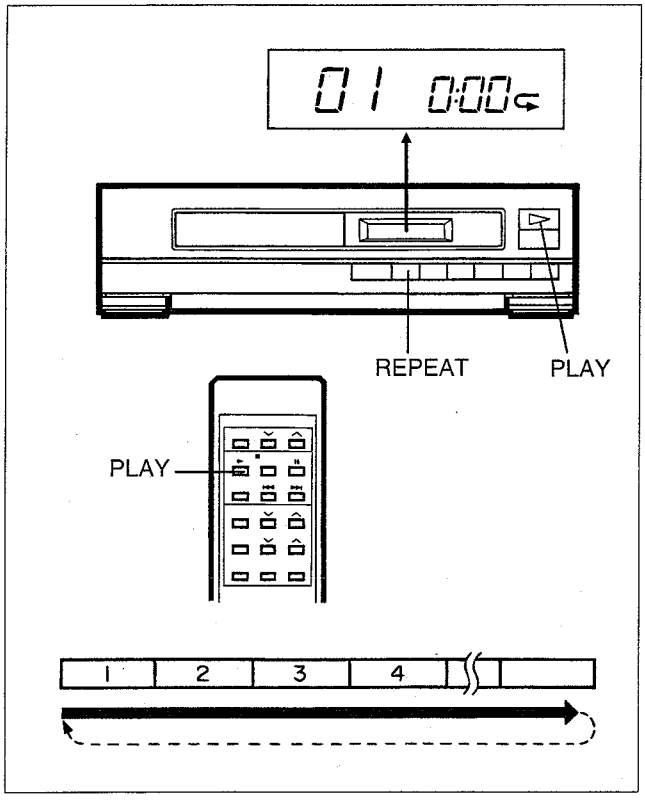
1 Press the CALL button whilst the disc is stopped to review the order of the programmed sequence before playback begins.

The playback sequence and track numbers will be displayed for easy confirmation.

2 Press the CALL button during playback or pause to check the number of the next track to be played.

3 In order to clear the entire programmed sequence, first press the STOP/CLEAR button to stop the disc, and then press the STOP/CLEAR button again the same number of times as the number of tracks which were programmed.

- Each time the button is pressed, one track will be cleared, beginning with the last track programmed.
- Opening the disc table automatically cancels the programmed sequence.



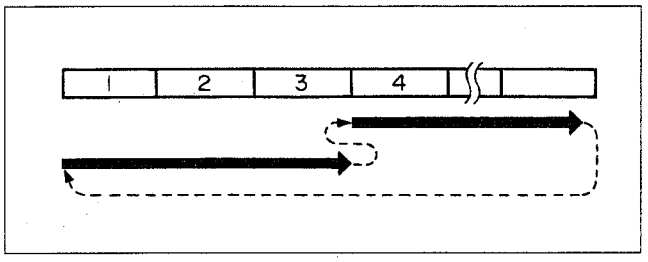
■ Repeat play

An entire disc, a single track, or a programmed sequence can be continuously repeated.

To repeat an entire disc:

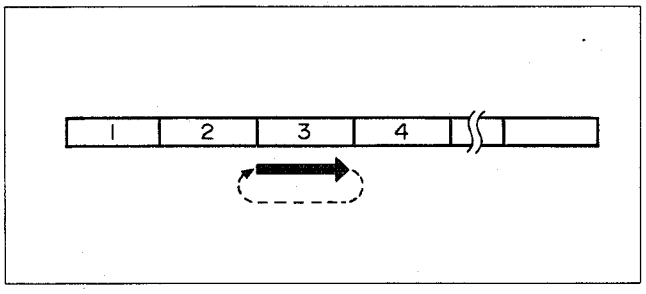
1 Press the REPEAT button.
- The "⊂" indicator will light up.

2 Press the PLAY button.



To repeat the whole disc from the current track:

Simply press the REPEAT button during playback.
- The "⊂" indicator will light up.

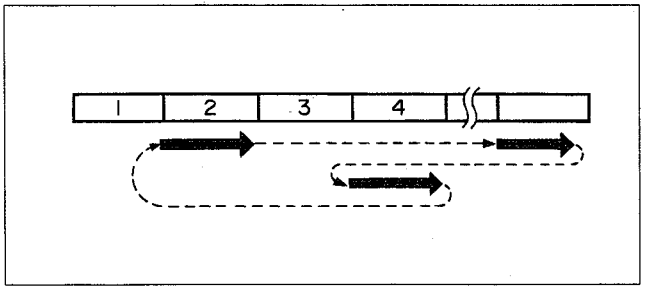


To repeat a single track:

1 Programme a single track.

2 Press the REPEAT button.
- The "⊂" indicator will light up.

3 Press the PLAY button.



To repeat a programmed sequence:

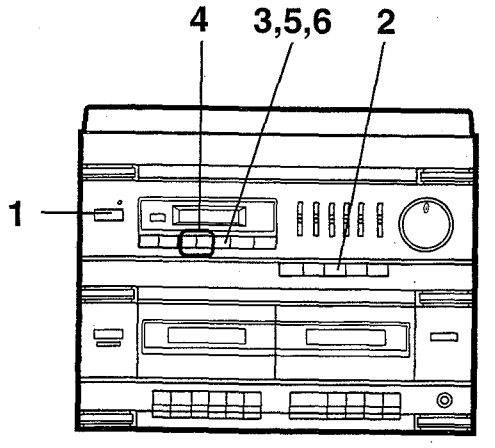
1 Programme a sequence of up to 20 tracks.

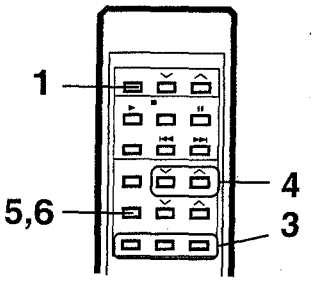
2 Press the REPEAT button.
- The "⊂" indicator will light up.

3 Press the PLAY button.

To cancel the repeat play:

Press the REPEAT button again.
(The "⊂" indicator goes out.)





■ Manual tuning

1 Set the POWER switch to ON.

2 Press the TUNER button.

3 Select the desired frequency band. (FM, MW or LW)

4 Use the TUNING (∨ or ∧) button to tune in to the desired station. Holding it down for more than 0.5 seconds will cause the frequency to change rapidly until the button is released.

5 To receive FM stereo transmissions, press the BAND selector button on the unit or the MONO/STEREO button on the remote control to turn on the "ST" indicator on the display.

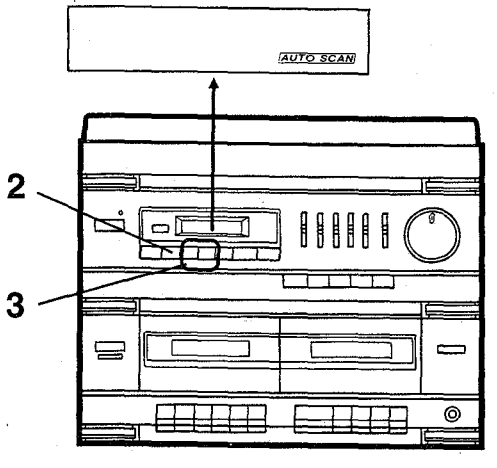
- The "∞" indicator lights up when an FM broadcast is in stereo.

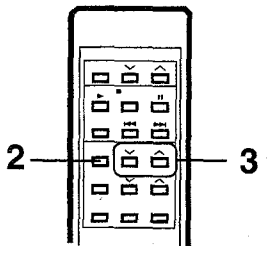
6 If the reception is poor, press the BAND selector button on the main unit or the MONO/STEREO button on the remote control to turn off the "ST" indicator.

- Although the reception changes to monaural, the sound becomes clearer.
- Please note that when the unit is being tuned in the FM stereo mode, interim station noise as well as weak stations are suppressed. Only in the FM monaural mode, can weak and noisy stations be received.

To switch the unit off after use:
Set the POWER switch to ⏻ STAND-BY.

Note:
The memory recalls the last station received even after changing the BAND selector button or setting the POWER switch to ⏻ STAND-BY.





■ Auto scan tuning

1 Perform steps 1 - 3 of the "Manual tuning" section.

2 Press the AUTO SCAN button, and the "AUTO SCAN" indicator on the display will light up.

3 Press the TUNING (∨ or ∧) button to tune into a station.

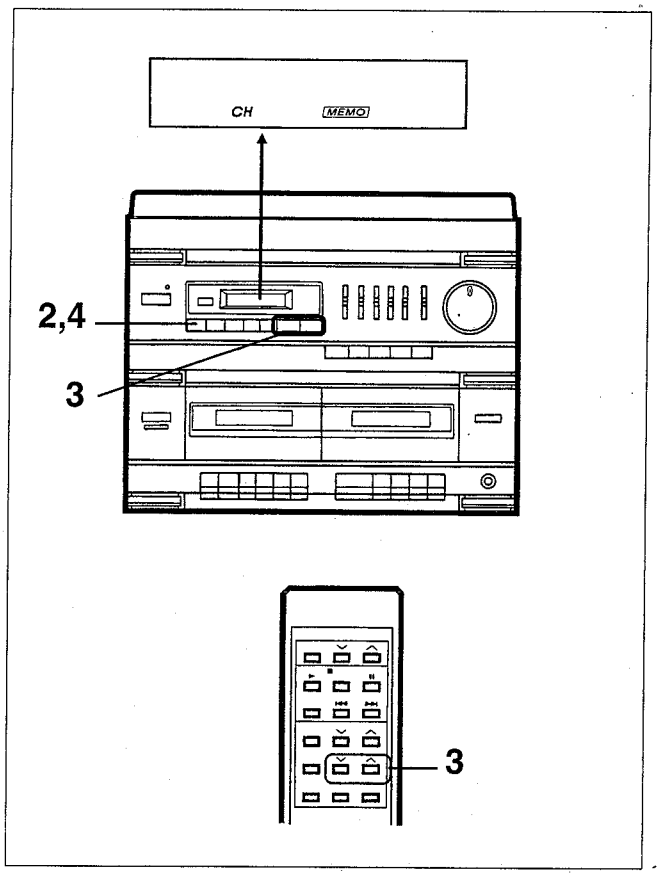
- Tuning stops automatically when a station is received.

4 Repeat step 3 until you find the desired station.

To stop auto scanning:

Press the AUTO SCAN button again.

Note:
When radio interference occurs during auto scan tuning, auto scan tuning may stop automatically at that point.



■ Preset tuning

You can store up to 30 stations (20 FM stations and 10 MW or LW stations) and recall them together with their FM reception mode (stereo or mono), at the push of a button.

1 Perform steps 1 - 6 of the "Manual tuning" section.

2 Press the MEMORY button. The display's "MEMO", "station number" and "CH" indicators will flash.

3 Press the PRESET (∨ or ∧) button until the preset number to be programmed flashes in the display.

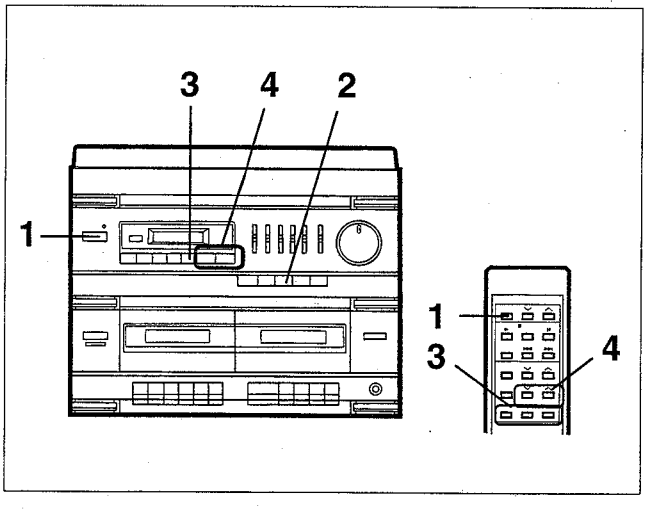
4 Press the MEMORY button again to store that station in the selected station preset number memory.

- 10 MW or LW stations and 10 FM stations can be stored in preset channels 1-10. Each of these channels can store one MW or LW station and one FM station. 10 extra FM stations can be stored in preset channels 11-20. Each of the channels can store only one FM station. These channels are not selectable when the band is set to MW or LW.

5 Repeat steps 1 - 4 to set the other preset stations, or to change a preset station.

Backup function:

The backup function protects all station presets for a few days even if there should be a power failure or the AC supply lead is removed from the AC outlet.



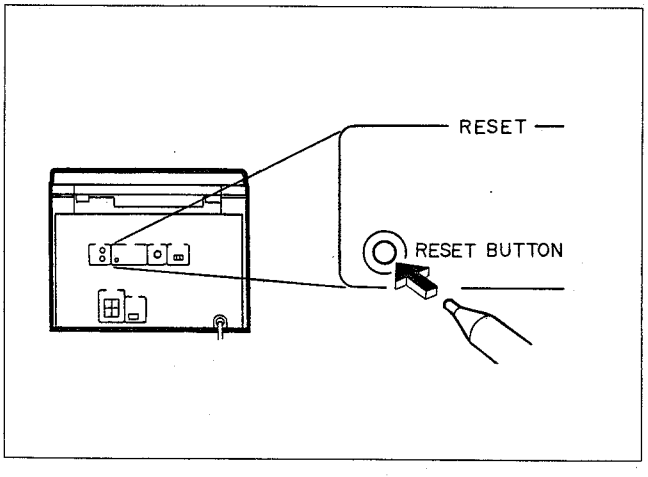
■ To recall a memorised station

1 Set the POWER switch to ON.

2 Press the TUNER button.

3 Select the desired frequency band. (FM, MW or LW)

4 Press the PRESET (∨ or ∧) button to recall the desired preset channel number. The caption FM ST, FM , MW or LW and a frequency will appear in the display.



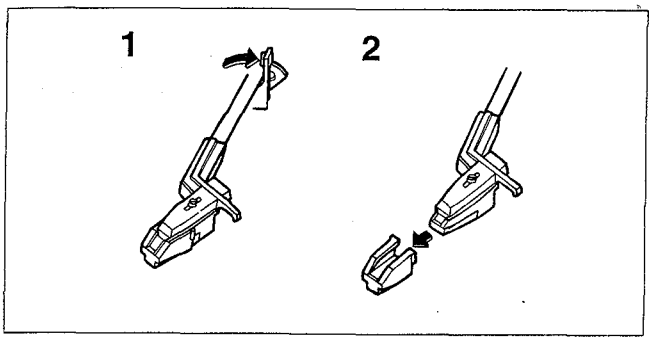
■ To clear all memorised stations

To clear all the memory contents or when the display is incorrect:

1 Set the POWER switch to ⏻ STAND-BY.

2 Press the RESET button for at least 3 seconds.

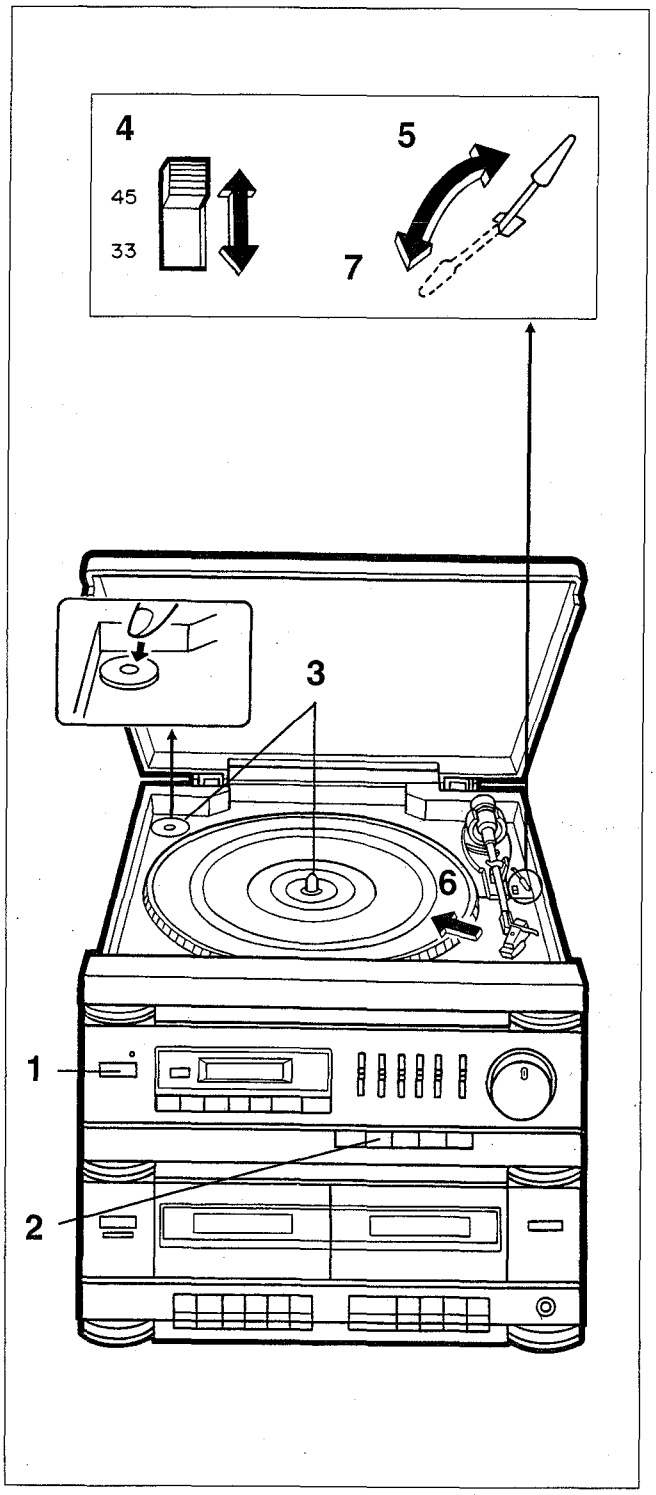
TURNTABLE OPERATION



■ Preparation

1 *Release the tonearm clamp.*

2 Remove the stylus protector.



■ Listening to records

1 Set the POWER switch to ON.

2 Press the PHONO button.

3 Place the record on the turntable. Place the EP record adaptor on the centre spindle to play a 17 cm (7") EP record.

- Press down on one side of the EP record adaptor to detach it from the unit.

4 Set the speed selector switch to 33 or 45 rpm according to the record.

5 *Slide the cue lever up.*

6 Move the headshell to the playing position.

7 Slide the cue lever down slowly. The cartridge will lower onto the record and start to play.

- The tonearm will automatically return to the rest position when the record finishes.
- To stop record whilst it is playing, lift the cue lever up, and move the headshell by hand to rest position.

To temporarily stop playing:

Slide the cue lever up to lift the tonearm.
Restart the record by sliding the cue lever down.

Note:

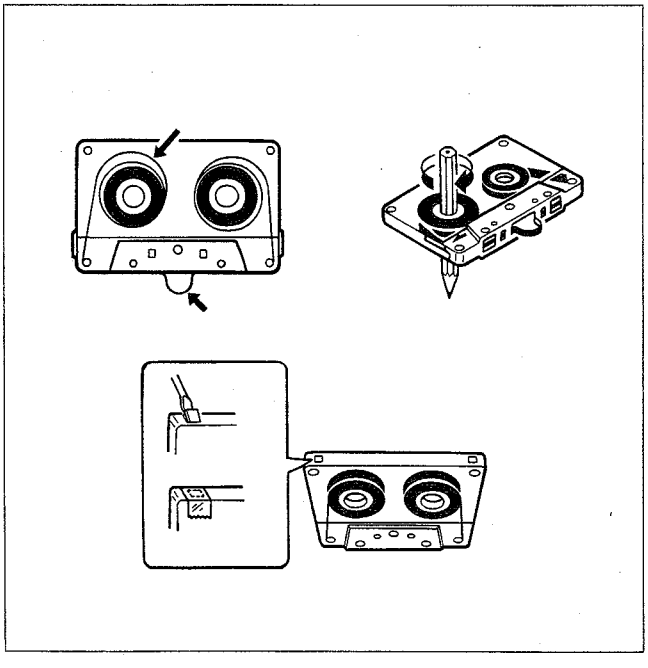
- *The turntable's fixed tracking force is ideal for the cartridge supplied. However, mistracking may occur on records cut at very high levels. If mistracking occurs, check if the stylus is dirty or worn, if the turntable is perfectly level, or if vibration is reaching it. If mistracking still occurs, the problem is with the record, which should not be used.*

(Continued)

Precautions when playing records:

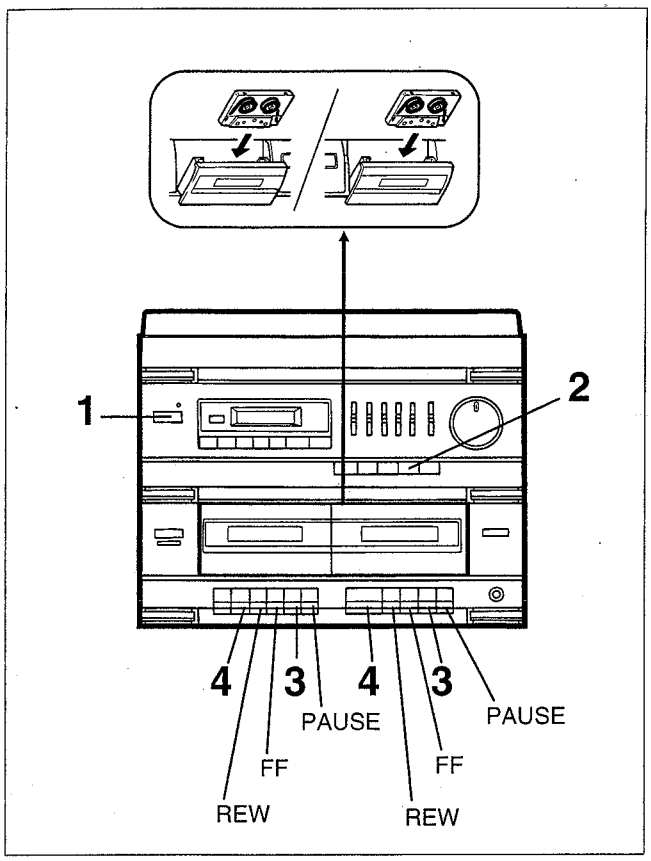
- The tonearm may not return automatically when a non-standard record is used. In this case, lift the cue lever up, and move the headshell by hand to the innermost groove to return it automatically.
- Do not rotate or stop the platter manually.
- Do not stop the tonearm manually when it is returning automatically.
- Moving or jarring the unit without securing the tonearm can damage the tonearm or stylus.
- Playing flexible records or badly warped records can damage the records and the stylus.
- When a record is played for the first time, the tonearm may not return automatically when the record finishes. In this case, lift the cue lever up, and move the headshell by hand to the innermost groove to return it automatically.
  After that, when the record is played, the tonearm will return automatically when the record finishes.
- Keep records away from excessive dust, since the static electricity built up on a record attracts dust easily.
- Do not place the speakers so they face the unit or are too close; this can cause feedback (howling) sounds when a record is playing.

CASSETTE OPERATION



■ General information

- For playback, use normal or low-noise tape for the best sound. (Metal or chrome tape is not recommended.)
  For recording, use only normal tape.
- Do not use C-120 tapes, tapes with internal reels, or poor-quality tapes, since they can cause malfunctions.
- Before loading a tape into the cassette compartment, tighten the slack tape with a pen or pencil.
- Cassettes have removable tabs which prevent accidental recording or erasing from taking place. Removing the tab on the top left protects the side facing you from erasure. Cover the tab holes with adhesive tape to erase or record again.
- TAPE 1: Playback only.
  TAPE 2: Playback or recording.



■ TAPE 1 or TAPE 2 playback

1 Set the POWER switch to ON.

2 Press the TAPE button.

3 Press the STOP/EJECT button and load a cassette into the TAPE 1 or TAPE 2 cassette compartment.

4 Press the PLAY button of TAPE 1 or TAPE 2 to start playback.

To interrupt playback:

Press the PAUSE button during playback.
Press the PAUSE button again to resume playback.

To stop playback:

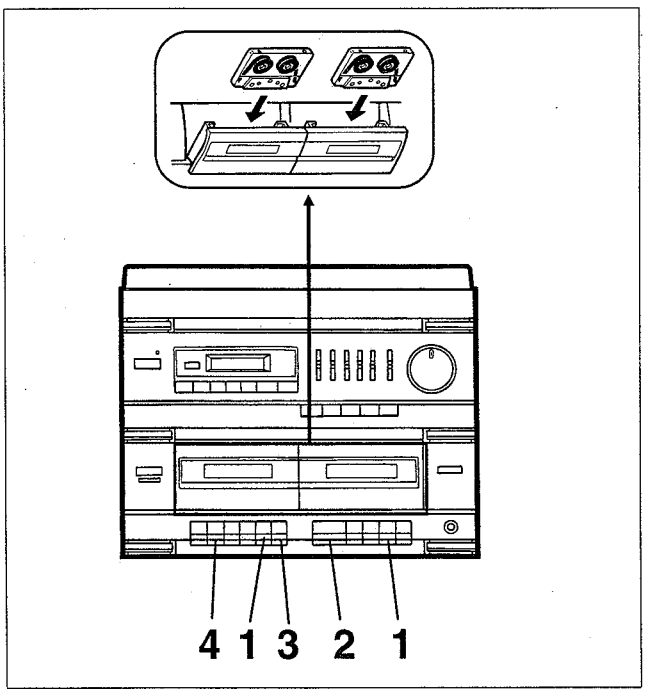
Press the STOP/EJECT button.

Fast forward/rewind:

To advance the tape, press the STOP/EJECT button, then the FF button. To rewind, press the STOP/EJECT button, then the REW button.

Precautions:

- Be sure not to press the PLAY and REW buttons simultaneously, or the tape will be damaged.
- Before changing from one mode to another whilst the unit is in tape operation, press the STOP/EJECT button.
- When the end of the tape is reached whilst the unit is operating in the recording, playback, fast forward or rewind mode, the full auto stop system is activated and automatically puts the unit into the stop mode.
- If the PAUSE button is pressed whilst the fast forward or rewind operation is in progress, the FF or REW button will not be released when the tape end is reached. In this case, press the STOP/EJECT button.



■ Continuous playback (TAPE 1 to TAPE 2)

1 Press the STOP/EJECT buttons and load cassettes into the TAPE 1 and TAPE 2 cassette compartments.

2 Press the PLAY button of TAPE 1.

- TAPE 1 starts to play.

3 Press the PAUSE button of TAPE 2.

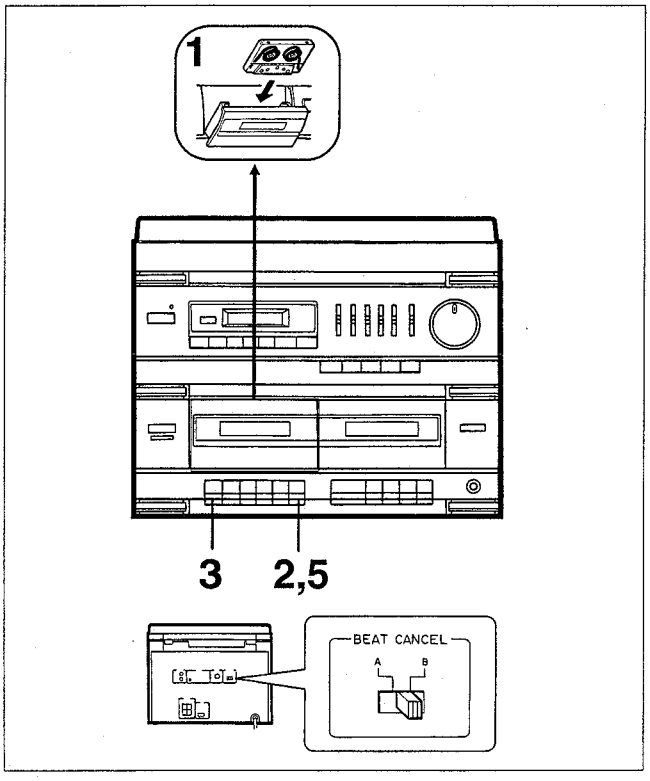
4 Press the PLAY button of TAPE 2.

- When TAPE 1 stops at the end of the tape, the PLAY button of TAPE 1 and the PAUSE button of TAPE 2 are automatically released, and TAPE 2 starts to play.

Note:

- When in the continuous play mode, pressing the STOP/EJECT button of TAPE 1 starts TAPE 2 automatically.

- When recording important selections, be sure to make a preliminary test to ensure that the desired material is being properly recorded.
- The ALC (Automatic Record Level Control) circuit automatically controls the level of the input signal used for recording.
- The VOLUME, BALANCE, X-BASS and GRAPHIC EQUALIZER controls may be adjusted with no effect on the recorded signal. (Variable Sound Monitor)
- Metal and chrome tapes cannot be used for recording or dubbing.



■ Recording from the radio, compact disc or a record

1 Load a cassette into the TAPE 2 cassette compartment.

2 Press the PAUSE button of TAPE 2.

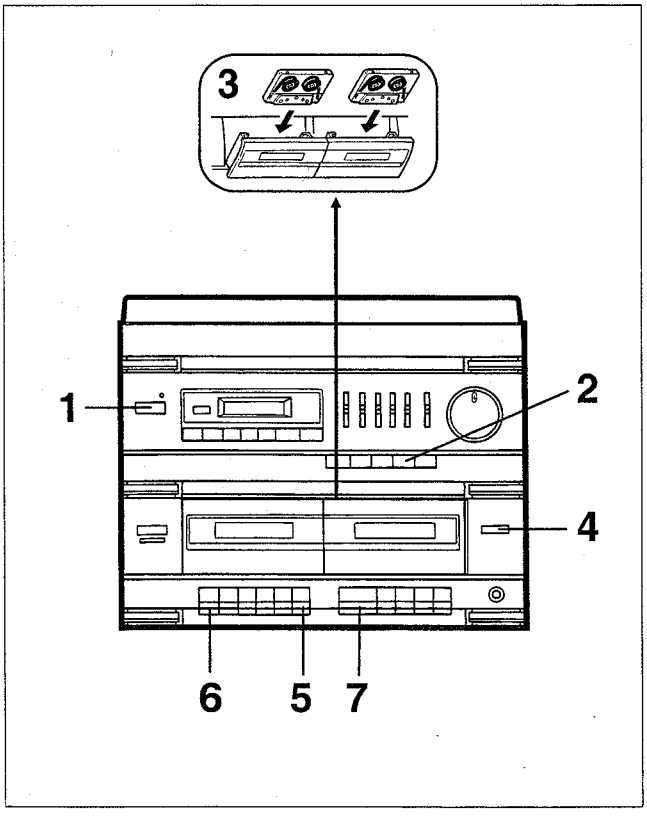
3 Press the RECORD button of TAPE 2, which also engages the PLAY button.

4 Tune in to the desired radio station (see pages 13-14), or play a compact disc (see pages 8-12) or a record (see pages 15-16).

5 Press the PAUSE button of TAPE 2 again to begin recording.

Beat cancel switch

If a whistling noise occurs when recording MW or LW, set the BEAT CANCEL switch to A or B, whichever gives the best reception.



■ Dubbing

1 Set the POWER switch to ON.

2 Press the TAPE button.

3 Load a prerecorded cassette into the TAPE 1 cassette compartment. Insert a blank tape into the TAPE 2 cassette compartment.

- It is recommended that the recording tape be the same time length as the master tape.

4 Set the DUBBING SPEED switch to NORMAL for actual-speed dubbing, HIGH for high-speed dubbing.

5 Press the PAUSE button of TAPE 2.

6 Press the RECORD button of TAPE 2, which also engages the PLAY button.

7 Press the PLAY button of TAPE 1.

- The PAUSE button of TAPE 2 will be released automatically and dubbing from TAPE 1 to TAPE 2 will begin. (Synchronous dubbing start)
- Do not change the setting of the DUBBING SPEED switch during dubbing.

(Continued)

■ Tape counter

Set the TAPE COUNTER to "000" at the beginning of each cassette by pressing the reset button. The numbers displayed can then be used as a convenient tape index. The tape counter only functions for TAPE 2.

■ Erasing recorded tapes

- Check to ensure that TAPE 1 is out of operation.

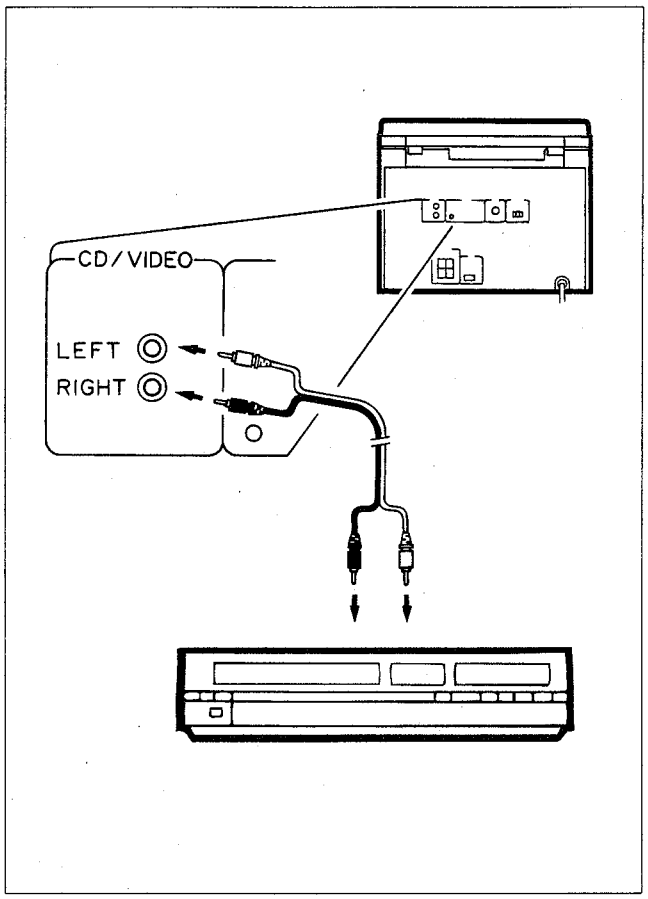
1 Set the POWER switch to ON.

2 Press the TAPE button.

3 Load the tape to be erased into the TAPE 2 cassette compartment.

4 Press the RECORD button of TAPE 2 to begin erasing.

USING EXTERNAL UNITS



■ CD/VIDEO (Audio Signal) input

To listen to or record audio signals from external units through this unit:

1 Use an RCA lead to connect the desired external unit to the CD/VIDEO sockets.
(red → right channel, white → left channel)

- When using video equipment (LD player, VCR), be sure to connect the audio output to this unit and the video output to a television.

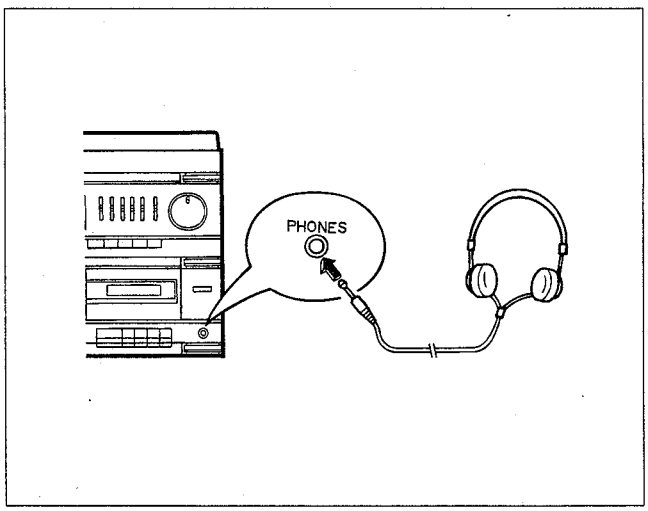
2 Set the POWER switch to ON.

3 Press the CD/VIDEO button.

4 Activate the external unit.

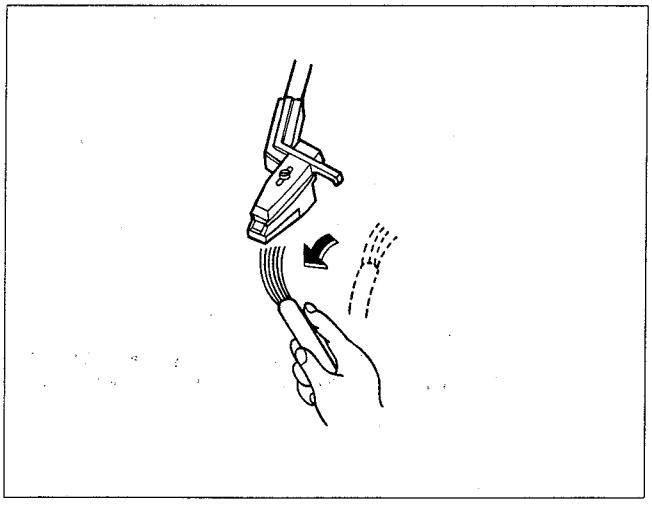
5 Start recording with this unit, if so desired.
(Refer to the "Recording from the radio, compact disc or a record" section on page 18 and perform steps 1-3 and 5.)

- To prevent hum interference, do not bring this unit near televisions.



■ Headphones

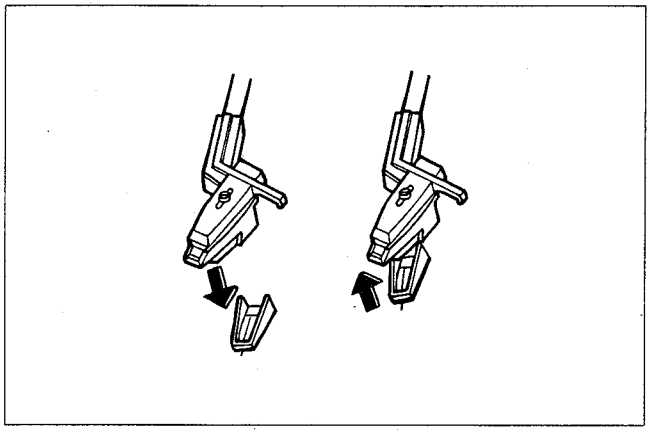
- Be sure that your headphones have a 6.3 mm (1/4") diameter plug and are between 8 ohms and 50 ohms impedance.
Recommended impedance is 32 ohms.
- When headphones are connected, the speakers are defeated automatically. Adjust the VOLUME control for desired volume.



■ Cleaning the stylus

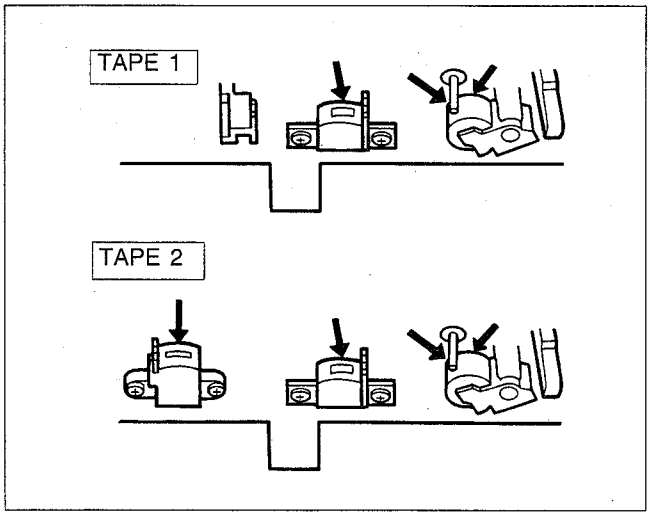
A dirty stylus will cause noise and poor sound quality. Use a stylus cleaning kit (consult your Sharp dealer) and brush off the dirt in the direction of the arrow.

- Do not brush in the opposite direction or from side to side, since this can damage the stylus.



■ Replacing the stylus

When the sound quality drops, replace the stylus with a new one (part No. STY-159, consult your Sharp dealer). Remove the old stylus by pulling it downwards gently, and push the new stylus into place as shown.



■ Internal care

- Dirty heads, capstans and pinch rollers can cause poor sound and tape jams. Clean these parts with a cotton swab moistened with commercial head/pinch roller cleaner or isopropyl alcohol.
- After long use, the deck's heads and capstans may become magnetised, causing poor sound. Demagnetise these parts once every 30 hours of playing/recording time by using a commercial tape head demagnetiser. Read the demagnetiser's instructions carefully before use.

■ External care

- Periodically wipe the cabinet with a soft cloth and dilute soap solution, then wipe with a dry cloth.
- Do not use chemically treated cleaning cloths or other chemicals.

SPECIFICATIONS

As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

■ Stereo music system (CMS-R250H/CMS-R330H)

● General

Power source:	AC 230 V, 50 Hz
Power consumption:	210 W
Dimensions:	Width; 360 mm (14-3/16") Height; 300.5 mm (11-7/8") Depth; 356 mm (14-1/16")
Weight:	7.6 kg (16.8 lbs.)

● Amplifier section

Output power:	RMS; 60 W (30 W + 30 W) (DIN 45 324) MPO; 120 W (60 W + 60 W) (DIN 45 324) PMPO; 240 W (total)
Input sensitivity and input impedance:	CD/VIDEO; 350 mV/47 kohms
Load impedance:	Speakers; 8 ohms Headphones; 8-50 ohms (recommended; 32 ohms)

● Tuner section

Frequency range:	FM; 87.5 - 108 MHz MW; 522 - 1,620 kHz LW; 153 - 281 kHz

● Cassette deck section

Tape:	Compact cassette tape
Bias and erasure system:	AC
Tape speed:	4.76 cm/sec (1-7/8 ips.)
Heads:	TAPE-1: Playback x 1 TAPE-2: Record/playback x 1 Erase x 1
Motor:	DC motor
Wow and flutter:	0.17 % (DIN 45 511)

● Turntable section

Type:	Belt drive, semi-automatic
Speed:	33-1/3 and 45 rpm
Motor:	DC motor
Arm/cartridge:	Dynamic balanced straight tonearm with ceramic cartridge
Replacement stylus:	STY-159

■ Compact disc player section (DX-R250HM/DX-R330HM)

Type:	Compact disc player
Signal readout:	Non-contact, 3-beam semi-conductor laser pickup
Rotational speed:	200 - 500 rpm CLV, Approx.
Error correction:	CIRC (Cross Interleave Reed-Solomon Code)
Audio channels:	2
D/A converter:	16 bit single D/A converter
Filter:	2-times oversampling digital filter and active filter
Frequency response:	5 - 20,000 Hz
S/N ratio:	95 dB (1 kHz)
Dynamic range:	90 dB (1 kHz)
Wow and flutter:	Unmeasurable (less than 0.001% W. peak)
Power source:	DC +7.3 V/-7.3 V
Dimensions:	Width; 360 mm (14-3/16") Height; 100 mm (3-15/16") Depth; 284 mm (11-3/16")
Weight:	2.6 kg (5.7 lbs.)

SHARP

SHARP CORPORATION

INST1620B

A9110.YM.FN